

*

%

MAD=%

MAD=%

MAD=%

% /

(Application

irrigation efficiency)

(Heerman and

(Deep Percolation)

.Solomon, 2007)

.(Rogers et

پژوهشگاه علوم انسانی و مطالعات فرهنگی
al., 1997)

(Zhang et al.,

پرتال جامع علوم انسانی
.1998)

()

(Zerihun)

()

()

()

() Kuo et al.

Kar & Verma

()

()

() Lai & Katual

()

()

Li et

() al.

PVC

() Watanabe et al.

(Sandy Clay Loam)

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پرتال جامع علوم انسانی

() Camposeo and Rubino

//

//

//

/

/

)

()

A θ_c () al., 1998 ()
MAD= % (B) /

C
MAD=%
%
%
()

θ_{pwp}	θ_{fc}	(cm)
'	'	'
'	'	'
'	'	'

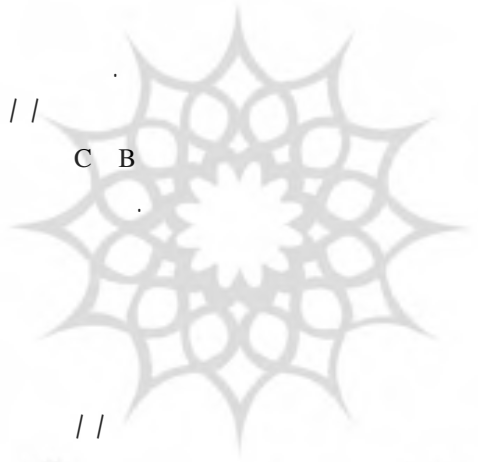
$$IRRI = D_{rz} (\theta_{fc} - \theta_i) \quad ()$$

D_{rz} (cm)

IRRI
 θ_i θ_{fc} (cm)

A
()

//
//



//

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SAS
پرتال جامع علوم انسانی

) (PR2)

$$\theta_c = \theta_{fc} - (MAD \times (\theta_{fc} - \theta_{pwp})) \quad ()$$

θ_c

Cropwat

Kc

(Management Allowed
Allen et / Depletion)

()

ET_o

(A) ()

ET_o

(B)

Cropwat

MAD

C B A

(A)

(C)

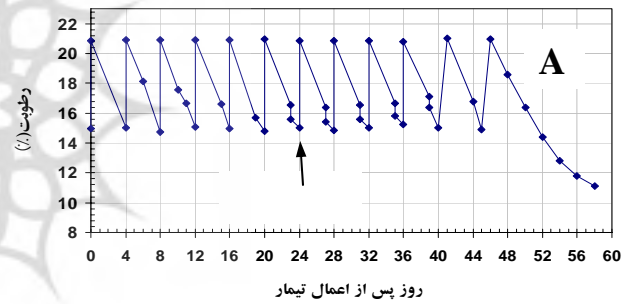
(B)

()

/ %

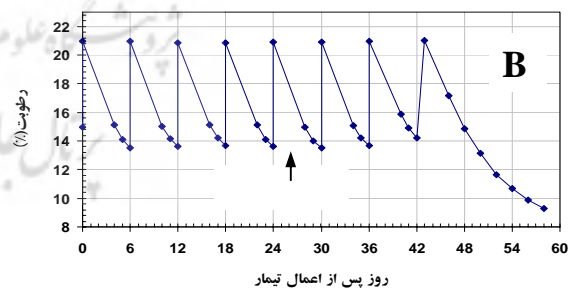
(C)

B



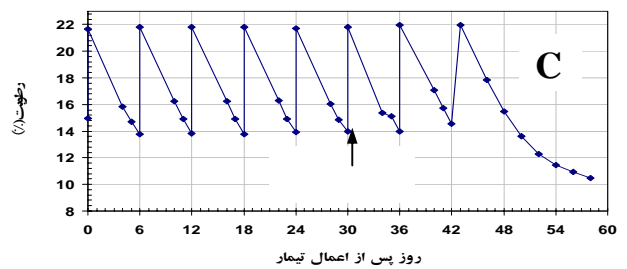
C

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مجمع علوم انسانی



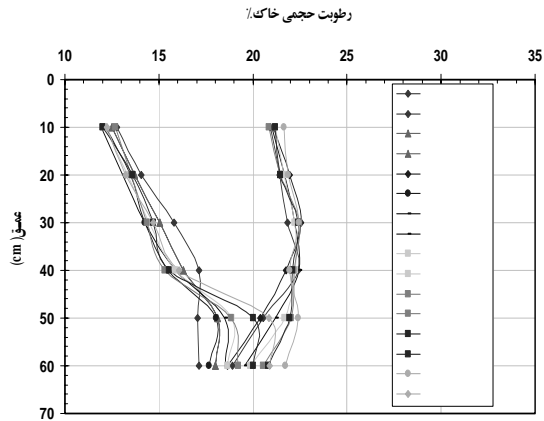
C

MAD = %



() (A)

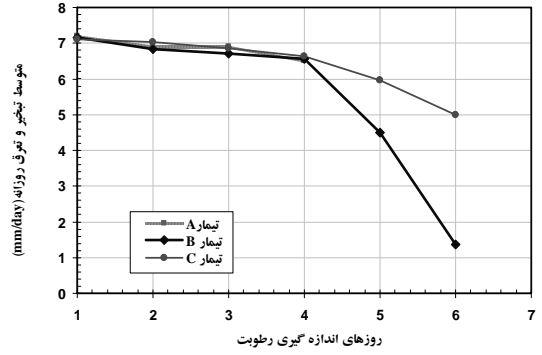
(C) (B) (A))



C

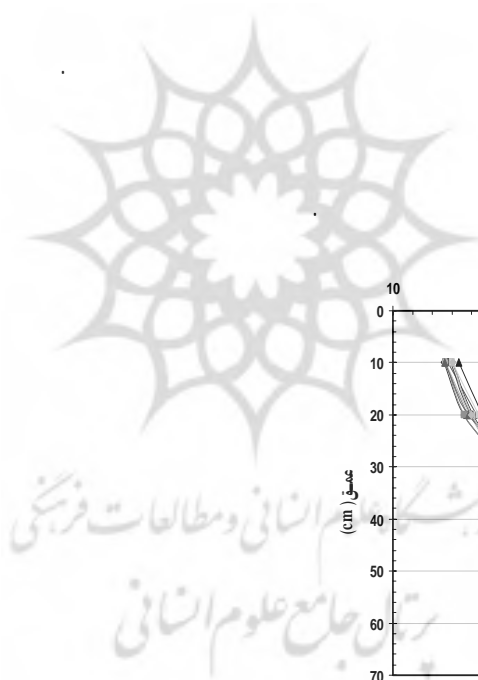
(A)

() B
C B A



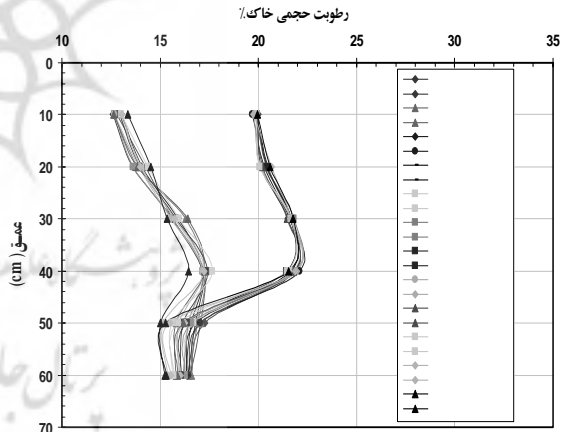
(B)

(C)



cm

C B A



()

C B A

	(A)	(B)	(C)
(mm)	/	/	/
(mm/day)	/	/	/

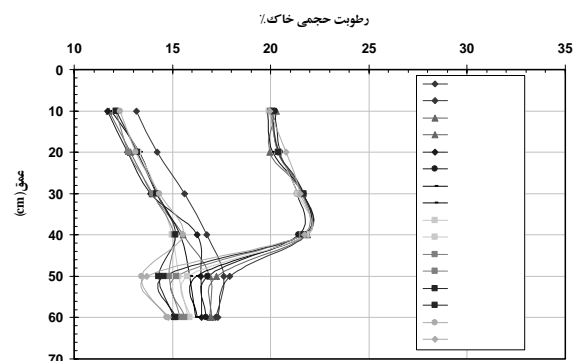
(B)

/

(A)

(mm/day)

A



B

()

(C)

(/ mm)

(/ (mm/day))

(C)

(C

%

B

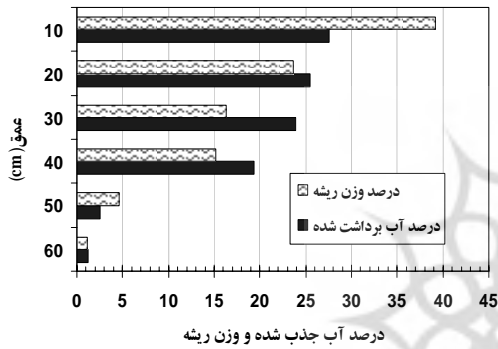
% /

()

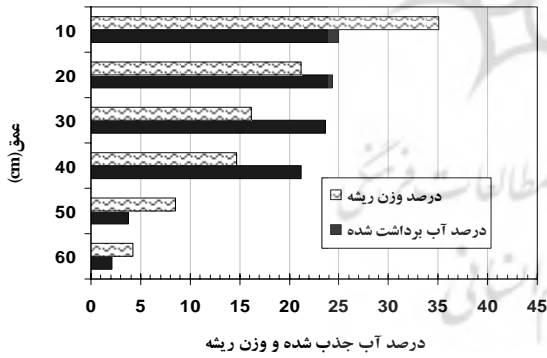
% /

% /

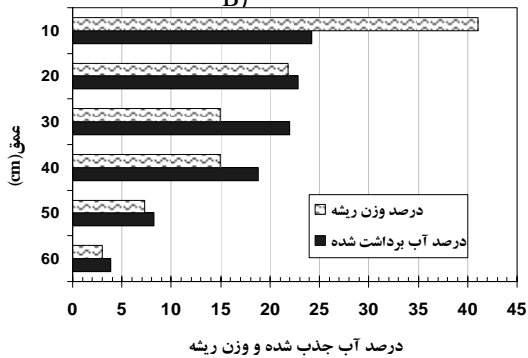
%



(A)



B)



(C)

%

(C)

(C)

(B)

%

%

(/ ÷ / = / mm)

/ mm C

(/ ÷ /) × = % /

() %

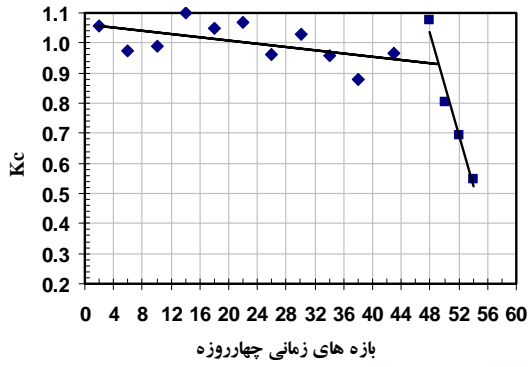
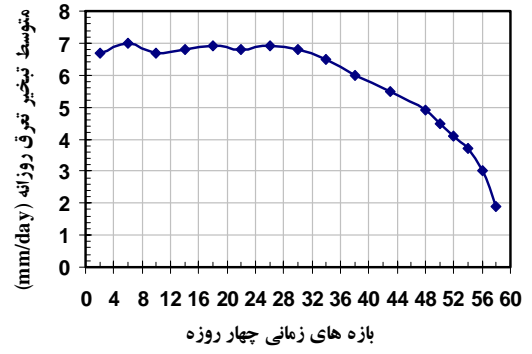
% /

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 مرکز تحقیقات و توسعه
 دانشگاه تهران
 تهران

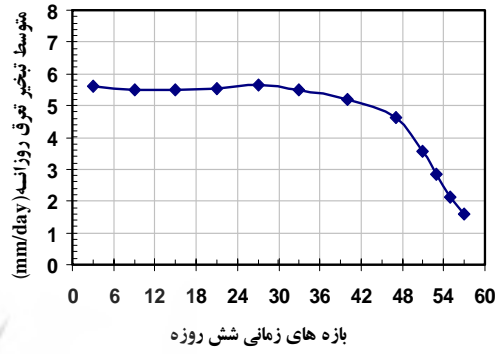
% /

(B)

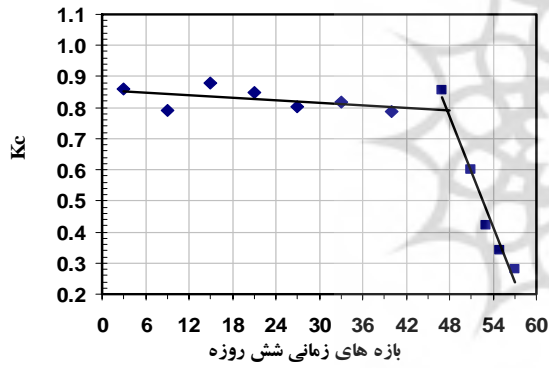
ET_c
 ET_o
 K_c () ()
)Cropwat



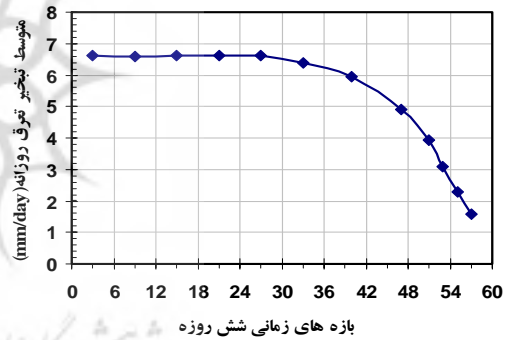
(A)



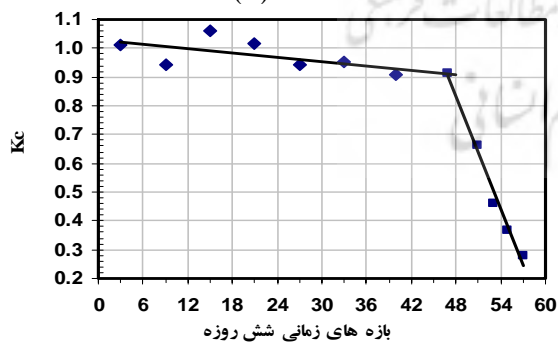
(B)



(B)



(C)



(C)

Kc

(C) (B),(A)

(A)

(B)

(C)

(C) (B) (A)

Cropwat

Kc

//

()

Kc

(C)

(Testi et al, 2004; Parkes et al. 2005;

.Kar & Verma, 2005)

Kc

()

B

() Karam et al. . %±

Kc

Kc

/ / /

Kc

(Kc)

/ /

()

ton/ha		ton/ha	gr			
/ a	/ a	/ a	/ a	/ a*	/ ab	A
/ b	/ b	/ c	/ b	/ b	/ b	B
/ ab	/ a	/ b	/ b	/ a	/ a	C

:c b a*

C A (B)

C A

C

)

B

%

(%)

(

)

(C)

()

(A)

(C)

%

(C)

(B)

	(cm)	= IRRI	%	%
	(cm)	= D_{rz}		MAD
(%)		= θ_{fc}		
(%)		= θ_{pwp}		MAD
	(%)	= θ_i		
	(%)	=MAD		
	(mm/d)	= ET_o		
	(mm/d)	= ET_c		
		= K_c	(%)	
		= E_a		MAD

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